20 **Elford J**, Bolding G, Davis M, *et al*. The internet and HIV study: design and methods. *BMC Public Health* 2004;**4**:39.
21 **Erens B**, McManus S, Field J, *et al*. *National survey of sexual attitudes and lifestyles II: technical report*. London: NatCen, 2001.
22 **Johnson AM**, Mercer CH, Erens B, *et al*. Sexual behaviour in Britain: partnerships, practices, and HIV risk behaviours. *Lancet* 2001;**358**:1835–42.
23 **Mercer CH**, Fenton KA, Copas AJ, *et al*. Increasing prevalence of male homosexual partnerships and practices in Britain 1990–2000: evidence from national probability surveys. *Acquir Immune Defic Syndr* 2004;**18**:1453–8.
24 **Schuman H**, Presser S. *Questions and answers in attitude surveys: experiments on question form, wording and context*. London: Academic Press, 1981.
25 **Sterne JAC**, Davey Smith G. Sifting the evidence—what's wrong with significance tests? *BMJ* 2001;**322**:226–31.
26 **Ross MW**, Månsson S, Daneback K, *et al*. Biases in internet sexual health samples: comparison of an internet sexuality survey and a national sexual health survey in Sweden. *Soc Sci Med* 2005;**61**:245–52.
27 **Dodds JP**, Mercer CH, Mercey DE, *et al*. Men who have sex with men: a comparison of a probability sample survey and a community based study. *Sex Transm Infect* 2006;**82**:86–7.
28 **Kellner P**. Can online polls produce accurate findings? *Int J Market Res* 2004;**46**:3–21.
29 **Elford J**, Bolding G, Sherr L, *et al*. High-risk sexual behaviour among London gay men: no longer increasing. *Acquir Immune Defic Syndr* 2005;**19**:2171–4.

COMMENTARY

The paper by Evans *et al*,[1] which compares a self-selected internet sample of gay men with a national probability sample of men who have sex with men (MSM), fills an important gap in the field of internet and MSM sampling. A decade ago, the internet was considered a vagary of electronics for the purpose of sampling, but studies such as that of Ross *et al*[2] in Sweden demonstrated that rather than collecting ''more of the same'' urban and gay-acculturated gay men as traditional samples, an internet sample appeared to contain more men who were younger, bisexual or heterosexual, from small towns or rural areas and poorly educated, compared with traditional bar and venue samples. More recently, Ross *et al*[3] compared an internet sample (heterosexual, bisexual, MSM) in Sweden with a gold-standard random sample from a national sexuality study and found that while there were expected differences in age (younger) and occupation (more students and fewer retired people) and a bias towards larger cities in the internet sample, the differences between the two samples were not major.

The comparison of a gay internet sample with a national random study population of MSMs, however, showed a significant gap until this study by Evans *et al*.[1] Their data show trends similar to the Swedish national probability study[3] in that internet respondents were more likely to be younger and students, but were also more likely to live outside major metropolitan areas, as Ross *et al*[2] had found in their convenience sample of MSM on the internet in Sweden. Particularly important, however, is Evans *et al*'s findings that the internet sample of MSM was likely to be in worse health (despite being slightly younger on average), over four times more likely to have had a sexually transmitted infection (STI) in the past year and to have major differences in the reports of anal (and unprotected anal) intercourse. These latter findings seem to reinforce the earlier findings of this team,[4 5] that the internet may act as a site for people with HIV infection to ''serosort''—select other HIV-infected men as partners for unprotected sex.

The internet has become an electronic venue for partner selection for gay men and other MSM, which is unrivalled in its potential sample size. It has the classic advantages of anonymity, affordability, acceptability and what is called ''approximation''—use of the internet for sexual experimentation or cybersex by men who might not otherwise be accessible for study in traditional venues.[6] Evans *et al* confirm that the MSM who were previously most difficult to access (non-London-dwellers and younger men) can be reached through the internet. The internet is, according to their data, also significant as a source for accessing MSM whose sexual risk behaviour for HIV and other STI acquisition is high—contrary to the earlier finding in the Swedish MSM convenience samples.[2] The internet can also access MSM, some of whom may not be identified as gay, who are spread across the country and away from prevention programmes which are concentrated in larger cities.

HIV/STI prevention programmes using the internet can deliver tailored interventions at any hour of the day or night anonymously and efficiently right into the bedroom (or wherever the computer is located!). And, as Evans *et al* now demonstrate, the biases within an internet sample, which were assumed to be massive given the usually <1% sample of banner-generated links to website to completed surveys,[7] are quantifiable and are often smaller than many might imagine. Evans and colleagues have put an important capstone on internet sampling studies with regard to MSM. From these data, for this population, internet sample weighting or stratification will remove one of the last methodological barriers to sampling; will aid implementing HIV/STI prevention internet interventions; and will promote generalising from internet data.

M W Ross
Dr M W Ross, School of Public Health, University of Texas, PO Box 20036, Houston, TX 77225, USA; michael.w.ross@uth.tmc.edu

REFERENCES

1 **Evans AR**, Wiggins RD, Mercer CH, *et al*. Men who have sex with men in Britain: comparison of a self-selected internet sample with a national probability sample. *Sex Transm Infect* 2007;**83**:200–5.
2 **Ross MW**, Tikkanen R, Månsson SA. Differences between Internet samples and conventional samples of men who have sex with men: implications for research and HIV interventions. *Soc Sci Med* 2000;**51**:749–58.
3 **Ross MW**, Månsson S-A, Daneback K, *et al*. Biases in Internet sexual health samples: comparison of an Internet sexuality survey and a national sexual health survey in Sweden. *Soc Sci Med* 2005;**61**:245–52.
4 **Bolding G**, Davis M, Hart G, *et al*. Gay men who look for sex on the internet: Is there more HIV/STI risk with online partners? *AIDS* 2005;**19**:961–8.
5 **Davis M**, Hart G, Bolding G, *et al*. Sex and the internet: gay men, risk reduction, and serostatus. *Culture Health Sexuality* 2006;**8**:161–74.
6 **Ross MW**, Kauth MR. Men who have sex with men and the Internet: emerging clinical issues. In: Cooper A, eds. *Sex and the Internet:a guidebook for clinicians*. New York: Brunner Routledge, 2002:47–69.
7 **Ross MW**, Daneback K, Månsson S-A, *et al*. Characteristics of men and women who complete an or exit from an on-line internet sexuality questionnaire: a study of instrument dropout biases. *J Sex Res* 2003;**40**:396–402.